Appendix 1. Detailed Data Tables and Technical Notes

Section 1. Detailed Data Tables

Chapter 1 What is the Socio-demographic Profile of Massachusetts?

Table A.1 Total Population b MA 2000 Census Data	y Health Service Region	(HSR):
Health Service Region:	MA (Number)	MA %
W 4 USB	000 000	400/
Western HSR	822,838	13%
Central HSR	806,015	13%
Northeast HSR	1,255,346	20%
Metrowest HSR	1,479,930	23%
Southeast HSR	1,238,054	20%
Boston HSR	746,914	12%
MA Total	6,349,097	
Data Source: U.S. Census Bureau, Census 2000 PL	94-171 redistricting file	

Chapter 2 – Who is currently living with HIV/AIDS?

Place of Birth: MA Data as of 7/1/03													
			US										
	US		Depend	ency	Non-l	JS	Total						
Race/Ethnicity:	N	%	N	%	N	%	N						
White NH	6,387	96%	21	<1%	278	4%	6,686						
Black NH	2.404	64%	15	<1%	1.337	36%	3,756						
Hispanic	1,211	35%	1,740	50%	510	15%	3,46						
APİ	35	22%	0	0%	123	78%	158						
AI/AN	17	94%	0	0%	1	6%	18						
Not Specified	68	84%	0	0%	13	16%	8′						

Table A.3 *Males* Living with HIV/AIDS by Race/Ethnicity and Exposure Mode¹: MA

Data as of 7/1/03

	White	e NH	Blacl	k NH	Hisp	anic	Al	기	AI/AN		
	N	%	N	%	N	%	N	%	N	%	
MSM	3,467	65%	514	23%	505	21%	63	51%	5	56%	
IDU	986	18%	719	32%	1,250	53%	6	5%	2	²	
MSM/IDU	282	5%	97	4%	81	3%	2	2	2	2	
HTSX	135	3%	225	10%	204	9%	7	6%	0	0%	
Other	76	1%	27	1%	25	1%	2	2	0	0%	
P. HTSX	226	4%	474	21%	202	9%	32	26%	0	0%	
NIR	173	3%	180	8%	83	4%	14	11%	0	0%	
Total	5,345	100%	2,236	100%	2,350	100%	124	100%	9	100%	

¹ See the Glossary for an explanation of exposure mode categories

Table A.4 Females Living with HIV/AIDS by Race/Ethnicity and Exposure Mode¹: MA

Data as of 7/1/03

	White NH		Black NH		Hisp	anic	Al	기	AI/AN		
	N	%	N	%	N	%	N	%	N	%	
IDU	709	53%	327	22%	376	34%	2	2	5	56%	
HTSX	365	27%	462	30%	497	45%	14	41%	2	2	
Other	30	2%	40	3%	19	2%	2	2	0	0%	
P. HTSX	181	13%	597	39%	178	16%	10	29%	1	1	
NIR	56	4%	94	6%	41	4%	7	21%	0	0%	
Total	1,341	100%	1,520	100%	1,111	100%	34	100%	9	100%	

¹ See the Glossary for an explanation of exposure mode categories

² Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, P. HTSX = Presumed Heterosexual Sex, NIR = No Identified Risk Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding)

Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented NH = Non-Hispanic, API = Asian/Pacific Islander, Al/AN = American Indian/Alaska Native, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, P. HTSX = Presumed Heterosexual Sex, NIR = No Identified Risk Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding)

Table A.5 People Living with HIV/AIDS by Health Service Region (HSR)¹ and Race/Ethnicity: MA

Data as of 7/1/03

HSR	White NH	Black NH	Hispanic	API	AI/AN	Total
Boston HSR	43%	37%	17%	1%	<1%	4,607
Central HSR	47%	18%	35%	1%	0%	1,228
Metrowest HSR	57%	31%	10%	2%	<1%	1,712
Northeast HSR	51%	17%	29%	2%	<1%	1,977
Southeast HSR	67%	18%	13%	<1%	<1%	1,978
Western HSR	30%	20%	49%	<1%	<1%	1,636
Prison ²	31%	26%	43%	<1%	<1%	1,013

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence)

Table A.6 People Living with HIV/AIDS by Health Service Region¹ and Exposure Mode²: MA

Data as of 7/1/03

HSR	MSM	IDU	MSM/ IDU	HTSX	Other	Pres. HTSX	NIR	Total
Boston HSR	45%	21%	3%	11%	1%	14%	5%	4,607
Central HSR	19%	41%	3%	19%	2%	13%	3%	1,228
Metrowest HSR	38%	20%	3%	11%	3%	19%	6%	1,712
Northeast HSR	29%	28%	3%	16%	2%	17%	6%	1,977
Southeast HSR	34%	32%	3%	15%	2%	10%	4%	1,978
Western HSR	20%	40%	3%	19%	1%	12%	5%	1,636
Prison ³	4%	76%	5%	6%	<1%	6%	2%	1,013

Reflects the health service region of a person's residence at the time of report (not necessarily current residence)

²HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include persons who were diagnosed with HIV/AIDS while in a correctional facility

API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native, NH= Non-Hispanic; Data Source: MDPH HIV/AIDS Surveillance Program

² See the Glossary for and explanation of Exposure Mode categories. MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include persons who were diagnosed with HIV/AIDS while in a correctional facility; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding)

Chapter 3 – Who is experiencing differential impact from HIV/AIDS?

Table A.7 Crude and Age-Adjusted HIV/AIDS Prevalence Rate per 100,000 Population¹ by Race/Ethnicity and Health Service Region (HSR): MA

Data as of 7/1/03

	Во	ston	Ce	ntral		letro Vest	N	orth- east	So	outh- East	Wes	stern		State Total
	cru	age	cru	age	cru	age	cru	age	cru	age	cru	age	cru	age
White NH	471	498	80	76	75	70	95	89	116	112	72	71	126	120
Black NH	1,117	1,196	1,089	1,190	1,097	1,078	1,091	1,105	875	930	778	881	1,116	1,178
Hispanic	732	876	823	1,077	344	412	533	659	767	1,005	1,021	1,360	807	995
API	107	107	53	55	33	31	90	89	44	46	7	9	64	64
AI/AN	275	282	124	109	0	0	191	175	87	89	73	66	157	147
Total	617	662	152	147	116	109	157	151	160	156	199	203	223	217

¹ Population sizes for prevalence calculations are based on 2000 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation

Data Source: MDPH HIV/AIDS Surveillance Program

Table A.8 Crude and Age-Adjusted HIV/AIDS Prevalence per 100,000 Population by Race/Ethnicity and Gender: MA

	Crude Rate per	Age-Adjusted Rate
Males:	100,000	per 100,000
White (non-Hispanic) Males	209	196
Black (non-Hispanic) Males	1,379	1,514
Hispanic Males	1,110	1,446
Asian/Pacific Islander Males	103	103
American Indian/Alaskan Native Males	157	150
MA Total Prevalence Among Males	331	318
	-	Age-Adjusted Rate
Females:	100,000	per 100,000
	,	
	,	•
White (non-Hispanic) Females	48 872	47
	48	•
White (non-Hispanic) Females Black (non-Hispanic) Females	48 872	47 882
White (non-Hispanic) Females Black (non-Hispanic) Females Hispanic Females	48 872 512	47 882 592

cru = crude HIV/AIDS prevalence rate, age = age-adjusted HIV/AIDS prevalence rate, NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native

Chapter 4 Who is most at risk of HIV infection and how has this changed over time?

Table A.9 People Diagnosed with HIV Infection by Race/Ethnicity and Place of Birth: MA, 2000-2002¹

Data as of 7/1/03

			US				
	US		Depend	ency	Non-l	Total	
Race/Ethnicity:	N	%	N	%	N	%	N
White NH	1,079	92%	7	1%	83	7%	1,169
Black NH	490	50%	5	1%	490	50%	985
Hispanic	229	33%	288	42%	167	24%	684
APÍ	11	15%	0	0%	61	85%	72
AI/AN	4	80%	0	0%	1	20%	5
Not Specified	17	74%	0	0%	6	26%	23
•							

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis; NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native

Table A.10 Males Diagnosed with HIV Infection by Race/Ethnicity and Year of Diagnosis: MA, Before 1999, 1999-2002¹

	White NH		Black NH		Hispanic		AP	I	Al/A	Total ²	
	N	%	N	%	N	%	N	%	N	%	
< 1999	9,421	61%	3,124	20%	2,877	18%	82	1%	18	<1%	15,555
1999	419	47%	227	25%	226	25%	12	1%	1	<1%	894
2000	350	45%	209	27%	187	24%	23	3%	0	0%	774
2001	316	48%	167	26%	146	22%	21	3%	1	<1%	653
2002 ³	293	47%	162	26%	140	23%	13	2%	1	<1%	620

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

² Totals include people with unspecified race/ethnicity

³ 2002 Data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.11 *Females* Diagnosed with HIV Infection by Race/Ethnicity and Year of Diagnosis: MA, Before 1999, 1999-2002¹

	White NH		Black NH		Hispanic		AF	PI	Al/A	Total ²	
	N	%	N	%	N	%	N	%	N	%	
< 1999	1,745	38%	1566	34%	1209	27%	14	<1%	6	<1%	4,553
1999	125	31%	157	40%	100	25%	8	2%	2	1%	397
2000	80	25%	164	50%	76	23%	2	1%	2	1%	325
2001	67	24%	139	49%	68	24%	6	2%	1	<1%	282
2002 ³	63	22%	144	51%	67	24%	7	2%	0	0%	284

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.12 *Males* Diagnosed with HIV Infection by Exposure Mode¹ and Year of Diagnosis: MA, Before 1999, 1999-2002²

	MSM IDU						es. SX	Other		NIR		Total			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	7,530	48%	4,985	32%	815	5%	570	4%	743	5%	398	3%	514	3%	15,555
1999	361	40%	266	30%	27	3%	62	7%	134	15%	3	0%	41	5%	894
2000	331	43%	165	21%	21	3%	57	7%	133	17%	5	1%	62	8%	774
2001	285	44%	134	21%	18	3%	56	9%	101	15%	2	0%	57	9%	653
2002 ³	285	45%	109	<i>18</i> %	<i>18</i>	3%	52	8%	<i>100</i>	<i>16%</i>	2	<i>0</i> %	62	10%	620

¹ See the Glossary for and explanation of Exposure Mode categories. MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk ² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Totals include people with unspecified race/ethnicity

³ 2002 Data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

³ 2002 Data are preliminary Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.13 Females Diagnosed with HIV Infection by Exposure Mode
and Year of Diagnosis: MA, Before 1999, 1999-2002 ²

	IDU		HT	sx	Oth	er	Pre HT:		NI	IR	Total
	N	%	N	%	N	%	N	%	N	%	N
<1999	2,110	46%	1,454	32%	224	5%	621	14%	144	3%	4,553
1999	115	29%	129	32%	2 2	1% 1%	132	33%	19	5%	397
2000 2001	72 54	22% 19%	117 82	36% 29%	3	1%	124 110	38% 39%	10 33	3% 12%	325 282
2002 ³	43	15%	82	29%	0	0%	115	40%	44	15%	284

¹ See the Glossary for and explanation of Exposure Mode categories. IDU = injection drug use; HTSX = heterosexual sex; Pres.

Table A.14 *Males* Diagnosed with HIV Infection by Age at Diagnosis: MA, 1999-2002¹

	<1999		1999		20	2000		2001		2002 ²	
Age in years	N	%	N	%	N	%	N	%	N	%	
Under 13 ³	127	1%	2	0%	0	0%	1	0%	1	0%	
13 to 19	152	1%	6	1%	12	2%	9	1%	9	1%	
20 to 24	843	5%	34	4%	30	4%	19	3%	37	6%	
25 to 29	2,621	17%	75	8%	82	11%	66	10%	65	10%	
30 to 34	3,868	25%	206	23%	140	18%	124	19%	104	17%	
35 to 39	3,521	23%	220	25%	191	25%	168	26%	128	21%	
40 to 44	2,315	15%	171	19%	135	17%	112	17%	121	20%	
45 to 49	1,130	7%	97	11%	84	11%	87	13%	70	11%	
50+	978	6%	83	9%	100	13%	67	10%	85	14%	
Total	15,555	100%	894	100%	774	100%	653	100%	620	100%	

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis ² 2002 Data are preliminary

HTSX = presumed heterosexual; NIR = No Identified Risk

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

2002 Data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

³ Includes AIDS cases diagnosed under age 13 years only, data on cases of HIV (non-AIDS) diagnosed under age 13 years are not included here. For more information contact the Pediatric Spectrum of Disease Project, MDPH Bureau of Communicable Disease Control.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.15 Females Diagnosed	d with HIV Infection by Age at
Diagnosis: MA, 1999-2002 ¹	-

	<19	<1999		1999		2000		2001		2002 ²	
Age in years	N	%	N	%	N	%	N	%	N	%	
Under 13 ³	102	2%	1	<1%	0	0%	1	<1%	0	0%	
13 to 19	97	2%	13	3%	13	4%	5	2%	7	2%	
20 to 24	488	11%	26	7%	30	9%	26	9%	26	9%	
25 to 29	932	20%	64	16%	54	17%	32	11%	46	16%	
30 to 34	1,181	26%	75	19%	56	17%	61	22%	51	18%	
35 to 39	834	18%	85	21%	80	25%	50	18%	64	23%	
40 to 44	460	10%	59	15%	48	15%	51	18%	42	15%	
45 to 49	230	5%	38	10%	21	6%	34	12%	26	9%	
50+	229	5%	36	9%	23	7%	22	8%	22	8%	
Total	4,553	100%	397	100%	325	100%	282	100%	284	100%	

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis 2002 Data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.16 People Diagnosed with HIV Infection by Gender and Race/Ethnicity: MA, 2000-2002¹

	Male		Female		
Race/Ethnicity:	N	%	N	%	
White NH	959	47%	210	24%	
Black NH	538	26%	447	50%	
Hispanic	473	23%	211	24%	
APÍ	57	3%	15	2%	
AI/AN	2	<1%	3	<1%	
Unknown	18	1%	5	1%	
Total	2,047	100%	891	100%	

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis; NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 7/1/03

³ Includes AIDS cases diagnosed under age 13 years only, data on cases of HIV (non-AIDS) diagnosed under age 13 years are not included here. For more information contact the Pediatric Spectrum of Disease Project, MDPH Bureau of Communicable Disease Control.

Table A.17 People Diagnosed with HIV Infection by Gender and Exposure Mode: MA, 2000-2002¹

	Male)	Femal	е	
Exposure Mode ² :	N	%	N	%	
MSM	893	44%	N/A	N/A	
IDU	408	20%	169	19%	
MSM/IDU	57	3%	N/A	N/A	
HTSX	165	8%	281	32%	
Other	9	<1%	5	1%	
Pres. HTSX	334	16%	349	39%	
NIR	181	9%	87	10%	
Total	2,047	100%	891	100%	

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.18 *Males* Diagnosed with HIV Infection by Race/Ethnicity¹ and Exposure Mode²: MA, 2000-2002³

	White	NH	Black	NH	Hispa	nic	AP	I
Exposure								
Mode:	N	%	N	%	N	%	N	%
MSM	638	67%	103	19%	124	26%	20	35%
IDU	122	13%	103	19%	176	37%	4	4
MSM/IDU	34	4%	15	3%	7	1%	0	0%
HTSX	34	4%	67	12%	57	12%	6	11%
Other	4	<1%	3	1%	2	<1%	4	4
Pres. HTSX	63	7%	174	32%	77	16%	19	33%
NIR	64	7%	73	14%	30	6%	10	18%
Total	959	100%	538	100%	473	100%	57	100%

Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

AIDS diagnosis ² See the Glossary for an explanation of exposure mode categories; MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, Pres. HTSX = Presumed Heterosexual Sex, NIR = No Identified Risk, N/A = Not Applicable

² See Glossary for an explanation of exposure mode categories

³ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

⁴ Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented

NH = Non-Hispanic, API = Asian/Pacific Islander, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, P. HTSX = Presumed Heterosexual Sex, NIR = No Identified Risk;

Table A.19 Females Diagnosed with HIV Infection by Race/Ethnicity¹ and Exposure Mode: MA, 2000-2002²

	White	NH	Black	NH	Hispa	nic	AP	l
Exposure Mode ³ :	N	%	N	%	N	%	N	%
							4	4
IDU	79	38%	42	9%	46	22%	"	"
HTSX	58	28%	125	28%	86	41%	7	47%
Other	2	1%	3	1%	0	0%	0	0%
Pres. HTSX	49	23%	234	52%	62	29%	4	4
NIR	22	10%	43	10%	17	8%	5	33%
Total	210	100%	447	100%	211	100%	15	100%

Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.20 Percentage Distribution of People Diagnosed with HIV Infection by Health Service Region¹ and Race/Ethnicity: MA, 2000-2002²

	White NH	Black NH	Hispanic	API	AI/AN	Total
Boston HSR	36%	43%	18%	2%	<1%	965
Central HSR	38%	31%	28%	2%	0%	218
Metro West HSR	45%	40%	12%	3%	0%	368
Northeast HSR	40%	29%	23%	7%	0%	428
Southeast HSR	59%	25%	14%	1%	0%	442
Western HSR	28%	22%	49%	<1%	<1%	358
Prisons ³	26%	26%	47%	0%	1%	159
MA Total	40%	34%	23%	2%	<1%	2,938

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence)

² See Glossary for an explanation of exposure mode categories

³ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

⁴ Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented

NH = Non-Hispanic, API = Asian/Pacific Islander, IDU = Injection Drug Use, HTSX = Heterosexual Sex, P. HTSX = Presumed Heterosexual Sex, NIR = No Identified Risk;

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include persons who were diagnosed with HIV/AIDS while in a correctional facility; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.21 Percent of People Diagnosed with HIV Infection by Health Service Region¹ and Exposure Mode²: MA 2000-2002³

Health Service			MSM/			Pres.		
Region:	MSM	IDU	IDU	HTSX	Other	HTSX	NIR	Total
Boston HSR	42%	12%	1%	12%	<1%	23%	9%	965
Central HSR	21%	22%	1%	20%	1%	28%	8%	218
Metro West HSR	29%	13%	2%	15%	<1%	28%	13%	368
Northeast HSR	27%	13%	1%	16%	<1%	30%	13%	428
Southeast HSR	31%	22%	3%	18%	1%	18%	8%	442
Western HSR	22%	33%	2%	18%	1%	18%	6%	358
Prison ⁴	6%	62%	5%	9%	0%	14%	4%	159
MA Total	30%	20%	2%	15%	<1%	23%	9%	2,938

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence)

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/02

Table A.22 Infection Status of Children Born In MA Exposed to HIV Perinatally and Enrolled in PSD by Year of Birth: MA, 1989-2001

	Infected		Uninfoo	tod	Indotorm	Total Exposures		
	mecte		Uniniec	Uninfected		Indeterminate		
Year:	N	%	N	%	N	%	N	
1989	41	46%	45	51%	3	3%	89	
1990	31	33%	62	66%	1	1%	94	
1991	32	28%	78	68%	5	4%	115	
1992	32	26%	86	69%	7	6%	125	
1993	21	23%	68	73%	4	4%	93	
1994	15	17%	72	82%	1	1%	88	
1995	19	19%	78	78%	3	3%	100	
1996	8	12%	55	82%	4	6%	67	
1997	7	9%	66	84%	6	8%	79	
1998	7	8%	77	90%	2	2%	86	
1999	6	8%	70	90%	2	3%	78	
2000	6	7%	73	81%	11	12%	90	
2001	0	0%	57	86%	9	14%	66	

² See the Glossary for and explanation of Exposure Mode categories. MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk

³ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

⁴ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include persons who were diagnosed with HIV/AIDS while in a correctional facility

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 7/1/03

Chapter 6: How have patterns of AIDS Diagnoses Changed Over Time?

Table A.23 People Living with AIDS¹ (Prevalence), Deaths among People Reported with AIDS (Deaths), and Newly Diagnosed AIDS Cases (Incidence) by Year: 1985-2002, MA

Year	Prevalence	Deaths	Incidence
1985	209	119	227
1990	2,037	631	1,081
1993	4,109	1,040	1,758
1994	4,379	1,206	1,476
1995	4,622	1,152	1,395
1996	5,008	767	1,153
1997	5,535	377	904
1998	6,164	316	945
1999	6,748	317	901
2000	7,180	301	733
2001	7,486	339	645
2002	7,762	260	536

Table A.24 Total Number of Reported AIDS cases, by Race/Ethnicity and Year of Diagnosis: MA, 1985 - 2002

	White	NH :	Black	NH	Hispa	anic	nic API AI/AN Total		AI/AN		Total ¹
	N	%	N	%	N	%	N	%	N	%	N
1005	155	600/	50	220/	04	00/	4	-10/	0	00/	227
1985	155	68%	50	22%	21	9%	1	<1%	0	0%	227
1990	665	62%	235	22%	173	16%	4	<1%	2	<1%	665
1993	977	56%	436	25%	336	19%	6	<1%	2	<1%	1,758
1994	777	53%	363	25%	328	22%	5	<1%	0	0%	1,476
1995	746	53%	310	22%	326	23%	5	<1%	5	<1%	1,395
1996	569	49%	295	26%	277	24%	7	1%	4	<1%	1,153
1997	401	44%	276	31%	214	24%	12	1%	0	0%	904
1998	408	43%	300	32%	224	24%	12	1%	0	0%	945
1999	398	44%	236	26%	252	28%	12	1%	2	<1%	901
2000	275	38%	232	32%	207	28%	18	2%	1	<1%	733
2001	279	43%	204	32%	152	24%	9	1%	1	<1%	645
2002	202	38%	187	35%	135	25%	11	2%	1	<1%	536

¹ Total includes people of unspecified race/ethnicity

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.25 Number and Percentage Distribution of Reported AIDS Cases by Exposure Mode¹ and Year of Diagnosis *Among Males*: MA, 1985-2002

MS		SM	IDU				MS ID		нт	SX	Otl	ner	Pr HT		NI	R	To- tal
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N		
1985	142	70%	29	14%	12	6%	1	<1%	6	3%	11	5%	3	1%	5204		
1990	479	54%	253	29%	45	5%	20	2%	32	4%	35	4%	22	2%	886		
1993	623	45%	494	36%	80	6%	46	3%	36	3%	46	3%	51	4%	1,376		
1994	474	41%	431	38%	65	6%	56	5%	20	2%	42	4%	55	5%	1,143		
1995	431	41%	410	39%	60	6%	55	5%	20	2%	37	4%	44	4%	1,057		
1996	348	41%	299	35%	33	4%	58	7%	19	2%	47	6%	40	5%	844		
1997	242	36%	264	39%	32	5%	39	6%	11	2%	44	7%	42	6%	674		
1998	251	37%	242	35%	26	4%	37	5%	7	1%	73	11%	48	7%	684		
1999	217	33%	267	41%	23	4%	35	5%	1	<1%	95	14%	19	3%	657		
2000	157	30%	179	35%	13	3%	44	9%	4	1%	92	18%	28	5%	517		
2001	155	35%	124	28%	23	5%	41	9%	5	1%	61	14%	33	7%	442		
2002	125	33%	98	26%	17	4%	41	11%	2	1%	63	17%	35	9%	381		

¹ See the Glossary for an explanation of Exposure Mode categories. MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk. Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.26 Number and Percent of Reported AIDS Cases by Exposure Mode¹ and Year of Diagnosis *Among Females*: MA, 1985-2002

	ID	U	HTS	SX	Oth	er	Pres. HTSX		NIF	₹	Total
	N	%	N	%	N	%	N	%	N	%	N
1985	3	13%	6	26%	7	30%	6	26%	1	4%	23
1983	90	46%	56	29%	26	13%	18	9%	5	3%	195
1993	212	55%	124	32%	19	5%	17	4%	10	3%	382
1994	145	44%	142	43%	9	3%	23	7%	14	4%	333
1995	169	50%	112	33%	16	5%	33	10%	8	2%	338
1996	140	45%	115	37%	16	5%	28	9%	10	3%	309
1997	94	41%	82	36%	9	4%	37	16%	8	3%	230
1998	93	36%	83	32%	12	5%	67	26%	6	2%	261
1999	95	39%	75	31%	3	1%	67	27%	4	2%	244
2000	75	35%	76	35%	5	2%	58	27%	2	1%	216
2001	69	34%	53	26%	5	2%	61	30%	15	7%	203
2002	51	33%	41	26%	2	1%	47	30%	14	9%	155

¹ See the Glossary for and explanation of Exposure Mode categories. IDU = injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Chapter 7 Who is dying with HIV/AIDS and how has this changed over time?

	F	liV	A	Total	
Gender:	N	%	N	%	1
Male	135	69%	897	74%	1,03
Female	61	31%	320	26%	38
Race/Ethnicity:	N	%	N	%	1
White NH	98	50%	612	50%	71
Black NH	56	29%	322	26%	37
Hispanic	40	20%	274	23%	31
APİ	1	1%	5	<1%	
AI/AN	0	0%	4	<1%	
Unknown	1	1%	0	0%	
Exposure Mode ¹ :	N	%	N	%	l
MSM	29	15%	241	20%	27
IDU	122	62%	642	53%	76
MSM/IDU	4	2%	57	5%	6
Heterosexual Sex	14	7%	95	8%	10
Other	1	1%	39	3%	4
Pres. HTSX	16	8%	88	7%	10
No Identified Risk	10	5%	55	5%	6

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.28 Percent of Deaths among Persons Reported with AIDS by Place of Birth and Year of Death: MA, 1985 - 2002

	US		US Depend	dency	Non-U	S	Total
Year	N	%	N	%	N	%	N
1985	97	82%	4	3%	18	15%	119
1990	525	83%	43	7%	63	10%	631
1993	853	82%	101	10%	86	8%	1,040
1994	947	79%	152	13%	107	9%	1,206
1995	931	81%	127	11%	94	8%	1,152
1996	618	81%	90	12%	59	8%	767
1997	297	79%	49	13%	31	8%	377
1998	234	74%	57	18%	25	8%	316
1999	238	75%	59	19%	20	6%	317
2000	229	76%	56	19%	16	5%	301
2001	264	78%	44	13%	31	9%	339
2002	199	77%	39	15%	22	8%	260

Table A.29 Deaths among Persons Reported with AIDS by Gender and Year of Death: MA. 1985 - 2002

	Male		Female		Total
Year	N	%	N	%	N
1985	107	90%	12	10%	119
1990	555	88%	76	12%	631
1993	875	84%	165	16%	1,040
1994	975	81%	231	19%	1,206
1995	920	80%	232	20%	1,152
1996	609	79%	158	21%	767
1997	280	74%	97	26%	377
1998	247	78%	69	22%	316
1999	240	76%	77	24%	317
2000	223	74%	78	26%	301
2001	243	72%	96	28%	339
2002	191	73%	69	27%	260

Table A.30 Deaths among Persons Reported with AIDS by
Race/Ethnicity and Year of Death: MA, 1985 - 2002

	White	∍ NH	Black	NH	Hispa	anic	AF	Pl	AI/AN		Total ¹
Year	N	%	N	%	N	%	N	%	N	%	N
4005	0.4	000/	0.4	400/	•	00/	•	00/	•	00/	
1985	81	68%	21	18%	9	8%	0	0%	0	0%	119
1990	420	67%	135	21%	76	12%	0	0%	0	0%	631
1993	664	64%	218	21%	151	15%	5	<1%	1	<1%	1,040
1994	719	60%	256	21%	225	19%	4	<1%	1	<1%	1,206
1995	672	58%	262	23%	210	18%	6	1%	2	<1%	1,152
1996	418	54%	209	27%	135	18%	4	1%	1	<1%	767
1997	196	52%	104	28%	74	20%	2	1%	1	<1%	377
1998	158	50%	80	25%	78	25%	0	0%	0	0%	316
1999	156	49%	77	24%	79	25%	2	1%	3	1%	317
2000	153	51%	71	24%	74	25%	2	1%	1	<1%	301
2001	182	54%	96	28%	61	18%	0	0%	0	0%	339
2002	121	47%	78	30%	60	23%	1	<1%	0	0%	260

¹ Total includes people of unknown race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

Table A.31 Number and Percent of Deaths Among Persons Reported with AIDS, by Mode of Exposure¹ and Year of Death: MA, 1985-2002

	M	SM	IDU		IDU ID		MSM/ IDU HTSX		Other		Pres. HTSX		NIR		To- tal
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
1985 1990 1993 1994 1995 1996 1997 1998 1999 2000 2001	72 352 458 455 434 254 94 80 57 57	61% 56% 44% 38% 38% 33% 25% 25% 18% 19% 22%	16 155 337 466 439 321 176 172 167 164 166	13% 25% 32% 39% 38% 42% 47% 54% 54% 49%	8 27 56 48 36 30 20 8 15 13	7% 4% 5% 4% 3% 4% 5% 3% 5%	0 26 76 105 130 83 47 25 28 21	0% 4% 7% 9% 11% 11% 12% 8% 9% 7%	10 27 36 40 41 20 14 3 13 13	8% 4% 3% 4% 3% 4% 1% 4% 2%	11 28 40 50 26 33 6 12 25 23 27	9% 4% 4% 4% 2% 4% 2% 4% 8%	2 16 37 42 46 26 20 16 12 10 24	2% 3% 4% 3% 4% 3% 5% 4% 3% 7%	119 631 1,040 1,206 1,152 767 377 316 317 301 339
2001	73 54	22% 21%	145	49% 56%	11	5% 4%	25 21	7% 8%	7	2% 3%	13	8% 5%	9	7% 3%	260

¹ See the Glossary for an explanation of Exposure Mode categories. MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk. Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/02

Table A.32 Time from AIDS Diagnosis to Death by Year of AIDS	
Diagnosis: MA. 1987-1991	

	19	87	19	88	19	89	19	90	19	91
Years between AIDS Diagnosis and Death	N	%	N	%	N	%	N	%	N	%
<1 yr. 1 - <2 yr. 2 - <3 yr. 3 - <4 yr. 4 - <5 yr. 5 - <6 yr. 6 - <7 yr. 7 - <8 yr. 8 - <9 yr. 9 - <10 yr. 10+ yr. Still Alive	265 159 122 70 31 17 5 10 3 5 35	41% 24% 19% 11% 5% 3% 1% 2% 0% 1%	277 207 137 70 33 24 12 10 3 2 12 73	32% 24% 16% 8% 4% 3% 1% 0% 0% 1%	285 230 163 89 63 46 14 6 5 4 12 82	29% 23% 16% 9% 6% 5% 1% 1% 0% 1%	290 214 193 116 59 38 14 10 10 5 11 121	27% 20% 18% 11% 5% 4% 1% 1% 0% 1%	360 305 200 118 65 31 13 13 9 7 10 199	27% 23% 15% 9% 5% 2% 1% 1% 1% 1%

¹Totals include 10 individuals diagnosed with AIDS between 1987 and 2000 where the years between AIDS diagnosis and death is unknown; Data Source: MDPH Surveillance Program; Data as of 7/1/03

Table A.33 Time from AIDS Diagnosis to Death by Year of AIDS Diagnosis: MA. 1992-1996

	19	92	19	93	19	94	19	95	19	96
Years between AIDS Diagnosis and Death	N	%	N	%	N	%	N	%	N	%
<1 yr.	371	21%	348	20%	295	20%	211	15%	108	9%
1 - <2 yr.	375	21%	352	20%	247	17%	105	8%	43	4%
2 - <3 yr.	297	17%	250	14%	112	8%	55	4%	49	4%
3 - <4 yr.	164	9%	107	6%	52	4%	47	3%	40	3%
4 - <5 yr.	52	3%	48	3%	34	2%	34	2%	35	3%
5 - <6 yr.	31	2%	32	2%	39	3%	30	2%	33	3%
6 - <7 yr.	36	2%	30	2%	24	2%	32	2%	15	1%
7 - <8 yr.	14	1%	31	2%	37	3%	20	1%	1	<1%
8 - <9 yr.	31	2%	16	1%	9	1%	N/A ¹	N/A ¹	N/A ¹	N/A^1
9 - <10 yr.	17	1%	9	1%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
10+ yr.	11	1%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
Still Alive	349	20%	534	30%	626	42%	861	62%	828	72%
Total ²	1,750		1,758		1,476		1,395		1,153	

¹ Not applicable because individuals diagnosed in this year have not yet had the opportunity to survive this many years before death ² Totals include 10 individuals diagnosed with AIDS between 1987 and 2000 where the years between AIDS diagnosis and death is unknown; Data Source: MDPH Surveillance Program; Data as of 7/1/03

Table A.34 Time from AIDS Diagnosis to Death by Year of AIDS									
Diagnosis: MA, 1997-2000									
	199	1997		1998		1999		2000	
Years between AIDS Diagnosis and Death	N	%	N	%	N	%	N	%	
<1 yr.	70	8%	56	6%	65	7%	57	8%	
1 - <2 yr. 2 - <3 yr.	36 31	4% 3%	33 18	3% 2%	26 31	3% 3%	16 11	2% 2%	
3 - <4 yr.	33	4%	22	2%	10	1%	N/A ¹	N/A ¹	
4 - <5 yr.	35	4%	8	1%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
5 - <6 yr.	11	1%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
6 - <7 yr.	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
7 - <8 yr.	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
8 - <9 yr.	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
9 - <10 yr.	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
10+ yr.	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
Still Alive	688	76%	808	86%	769	85%	649	89%	

Total²

¹ Not applicable because individuals diagnosed in this year have not yet had the opportunity to survive this many years before death ² Totals include 10 individuals diagnosed with AIDS between 1987 and 2000 where the years between AIDS diagnosis and death is unknown; Data Source: MDPH Surveillance Program; Data as of 7/1/03

Section 2. Explanation of Age Adjusted Rates

A "rate" of a disease per 100,000 population is a more precise way to compare groups that have substantially different population sizes rather than relying on the raw number of cases. For example, the number of HIV/AIDS cases among Hispanics as of July 1. 2003, is 3,461, whereas the number of HIV/AIDS cases among Whites is 6,686. Although the *number* of HIV/AIDS cases among Hispanics in Massachusetts is smaller than the number of cases among Whites, we also need to consider that there are far fewer Hispanics living in Massachusetts than Whites. Hispanics represent 7% of Massachusetts population compared to Whites who represent 82% of the population. So, if HIV/AIDS had the same impact on the Hispanic population of the state as on the White, then there should be almost 12 times as many cases in Whites, but there are only about twice as many. By calculating a rate which takes into consideration the differences in the population size, it is evident that the number of people living with HIV/AIDS for every 100,000 Hispanics in Massachusetts is much higher than the rate for every 100,000 Whites. This rate is called a "crude rate" and is calculated by dividing the number of people living with HIV/AIDS by the entire population (everyone or the sub-population involved) and multiplying by 100,000. (See example 1 below).

Example 1: Calculation of Crude HIV/AIDS Prevalence Rate for Whites, Massachusetts (126 per 100,000)

Crude HIV/AIDS prevalence rate for Whites

= (number of Whites living with HIV/AIDS/population size

of Whites)*100,000

= (6,686/5,326,585)*100,000

= (0.0012552)*100,000

= 125.5

However, sometimes, in addition to the population size being different, the age composition of the populations is different. In Massachusetts, Blacks and Hispanics have a younger age composition than Whites. That is to say, there are greater proportions of Blacks and Hispanics in younger age groups compared to Whites. Likewise, the median age of Blacks (29.7 years) and Hispanics (24.5 years) is younger than that of Whites (38.8 years). Therefore, it is necessary to "age-adjust" the HIV/AIDS prevalence rate to get a true comparison of the impact of the disease across racial/ethnic groups without an effect from the differences in age composition. Age-adjustment of rates minimizes the distortion created by differences in age composition.

Age-adjusted rates are calculated by weighting the age-specific rates for a given population by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (See example 2 below).

Example 2: Calculation of Age-adjusted HIV/AIDS Prevalence Rate for Whites, Massachusetts (120 per 100,000)

А	В	С	D	Е	
Age group (in years)	# of prevalent HIV/AIDS cases	Population (2000)	2000 US standard population weight	Age-adjusted rate ((B/C*D)*100,000))	
<1	0	61,381	0.013818	0.0	
1-4	0	245,562	0.055317	0.0	
5-14	14	675,388	0.145565	0.3	
15-24	80	634,387	0.138646	1.7	
25-34	777	734,417	0.135573	14.3	
35-44	3069	902,498	0.162613	55.3	
45-54	2146	771,970	0.134834	37.5	
55-64	517	491,985	0.087247	9.2	
65-74	77	396,458	0.066037	1.3	
75-84	5	300,442	0.044842	0.1	
85+ years	1	112,097	0.015508	0.0	
Total				119.7	

To see the effect of age-distribution on prevalence rates see Tables A.6-A.7 in this appendix for a comparison of crude and age-adjusted rates by race/ethnicity.